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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,773	11/16/2001	Anne Robert	ESSR:057US	5899

7590

12/19/2002

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EXAMINER

LEE, RIP A

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 12/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,773

Applicant(s)

ROBERT ET AL.

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13, 17, 18, 21, 22, 27, 28 and 30 is/are rejected.
- 7) ☒ Claim(s) 14-16, 19, 20, 23-26, 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

DETAILED ACTION

This office action follows a preliminary amendment filed on November 16, 2001. Claims 1-12 were canceled, and new claims 13-30 were added.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 13, 18, 19, 21, 22, 27, and 28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 6, 9, and 11 of copending Application No. 09/939,151.

Present claim 13 is drawn to a method of obtaining a photochromic latex comprising the steps (1) preparing a mixture of at least one monomer Z, which monomer comprises a least one C=C group and is polymerizable by a radical process, at least one photochromic compound, at least one surfactant, and water, (2) forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase, (3) adding polymerization primer

before, during, or after forming the miniemulsion, (4) polymerizing the reaction mixture, and (5) recovering the latex. Claim 18 indicates addition of primer during formation of miniemulsion. Claim 19 recites a droplet diameter of the organic phase of 50-500 nm. Claim 21 states that monomer Z is alkyl (meth)acrylate. Claim 22 restricts the photochromic compound to chromenes and spirooxazines, and claim 27 indicates that the polymerization primer is soluble in the aqueous phase. Claim 28 shows that sodium persulfate is the polymerization primer.

Claim 1 of copending Application No. 09/939,151 is drawn to a method of preparing a latex with photochromic properties comprising (1) preparing an aqueous emulsion (I) of composition A comprising at least one monomer Z with a C=C group capable of free radical polymerization and one or more organic photochromic compounds containing a chromene nucleus, and (2) polymerizing composition A in the presence of water soluble initiator to obtain said latex with photochromic properties. Claim 4 indicates that initiator is added progressively throughout polymerization, and claim 6 indicates sodium persulfate as the initiator. Claim 9 states that monomer Z is alkyl (meth)acrylate. Claim 11 limits the particle size to 50-400 nm.

The copending application does not recite the term "polymerization primer," but it uses the term "initiator." However, it is obvious to one having ordinary skill in the art that the two terms are synonymous, especially since both applications recite use of sodium persulfate.

The copending application also does not state specifically the formation of a miniemulsion, but claims are drawn to the formation of particles having diameter of 50-400 nm. One having skill in the art would find it obvious that a miniemulsion is being formed because miniemulsions contain particles having this particle size range. Furthermore, it is maintained

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that one skilled in the art would find it obvious that miniemulsions are being formed because the particle size range lies squarely within the 50-500 nm range set forth in the present application.

The claims of the copending application are drawn to formation of a latex, but it is silent with respect to use of surfactant. It would have been obvious to one having ordinary skill in the art to use surfactant because one having skill in the art would know that latices, by definition, require surfactants to stabilize the emulsion (see enclosed article, "Latices," Encyclopedia of Polymer and Science and Engineering, 1987).

The copending application does not claim a step of recovering the latex. However, the claims recite steps "to obtain said latex with photochromic properties." Arguably, the context of the terms "obtain" and "recover" are synonymous, and one having skill in the art would find it obvious to construe their meanings as being synonymous. One skilled in the art would find it obvious that in order to use the latex, one first needs to recover it.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 13, 18, 21, 22, 27, and 28 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/939,151 which has a common assignee and at least one common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Present claim 13 is drawn to a method of obtaining a photochromic latex comprising the steps (1) preparing a mixture of at least one monomer Z, at least one photochromic compound, at least one surfactant, and water, (2) treatment in order to form a miniemulsion consisting of droplets having diameter of 50-500 nm, (3) adding polymerization primer before, during, or after

forming the miniemulsion, (4) polymerizing, and (5) recovering the latex. Claim 18 indicates addition of primer during formation of miniemulsion. Claim 21 states that monomer Z is alkyl (meth)acrylate. Claim 22 restricts the photochromic compound to chromenes and spirooxazines, and claim 27 indicates that the polymerization primer is soluble in the aqueous phase. Claim 28 shows that sodium persulfate is the polymerization primer.

Claim 1 of copending Application No. 09/939,151 is drawn to a method of preparing a photochromic latex comprising (1) preparing an aqueous emulsion of at least one monomer Z, at least one photochromic chromene compound, and (2) polymerizing in the presence of water soluble initiator (*i.e.*, polymerization primer) to obtain (*i.e.*, recovery is implied) the photochromic latex. Claim 4 indicates that initiator is added progressively throughout (*i.e.*, during) polymerization, and claim 6 indicates sodium persulfate as the initiator. Claim 9 states that monomer Z is alkyl (meth)acrylate. Claim 11 limits the particle size to 50-400 nm. By definition, latices contain surfactants to stabilize the emulsion (see "Latices," Encyclopedia of Polymer and Science and Engineering, 1987).

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

5. Claims 13, 17, 18, 21, 22, 27, and 28, 30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 2002/0128339 to Maisonnier *et al.*

Maisonnier *et al.* teaches a method of preparing a photochromic latex comprising (1) preparing an aqueous emulsion of at least one monomer Z, at least one photochromic chromene compound, and (2) polymerizing in the presence of water soluble initiator (*i.e.*, polymerization primer) to obtain (*i.e.*, recovery is implied) the photochromic latex. Claim 4 indicates that initiator is added progressively throughout (*i.e.*, during) polymerization, and claim 6 indicates sodium persulfate as the initiator. Paragraph [0059] also lists 2,2'-azobis(2-amidinopropane) dihydrochloride as a useful initiator. Claim 9 states that monomer Z is alkyl (meth)acrylate. Claim 11 limits the particle size to 50-400 nm. By definition, latices contain surfactants to stabilize the emulsion (see "Latices," Encyclopedia of Polymer and Science and Engineering, 1987). Furthermore, the use of surfactants is discussed in paragraph [0068], and the examples show the use of DISPONIL® surfactant for stabilizing the latex. The example teaches degassing prior to addition of primer (paragraph [0113]).

6. Claims 14-16, 19, 20, 23-26, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references relate to miniemulsion methods and/or photochromic lattices.

U.S. Patent No. 5,731,379 to Kennan *et al.*

U.S. Patent No. 4,929,693 to Akashi *et al.*

U.S. Patent No. 5,686,518 to Fontenot *et al.*

U.S. Patent No. 5,840,813 to Gornowicz *et al.*

U.S. Patent No. 5,994,458 to Cheng *et al.*

U.S. Patent No. 6,342,094 to Kabalnov

U.S. Patent No. 6,458,887 to Legros *et al.*

WO 02/40548 to Robert *et al.*


U.S. 2002/0143088 to Robert *et al.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

ral

November 18, 2002


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